

Serial Number: 09/815, 825

ENTERED

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a format error in the Current Application Data section, specifically: \_\_\_\_\_
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEO ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEO ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☐ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file;  
☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

## RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/815,825

TIME: 08:25:47

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw

```

4 <110> APPLICANT: Allen, Keith D.
5   Phillips, Russell
7 <120> TITLE OF INVENTION: TRANSGENIC MICE CONTAINING cGMP
8   PHOSPHODIESTERASE GENE DISRUPTIONS
11 <130> FILE REFERENCE: R-849
13 <140> CURRENT APPLICATION NUMBER: US 09/815,825
14 <141> CURRENT FILING DATE: 2001-03-22
16 <150> PRIOR APPLICATION NUMBER: US 60/191,142
17 <151> PRIOR FILING DATE: 2000-03-22
19 <150> PRIOR APPLICATION NUMBER: US 60/204,227
20 <151> PRIOR FILING DATE: 2000-05-15
22 <150> PRIOR APPLICATION NUMBER: US 60/216,765
23 <151> PRIOR FILING DATE: 2000-07-06
25 <150> PRIOR APPLICATION NUMBER: US 60/219,182
26 <151> PRIOR FILING DATE: 2000-07-19
28 <160> NUMBER OF SEQ ID NOS: 21
30 <170> SOFTWARE: FastSEQ for Windows Version 4.0
32 <210> SEQ ID NO: 1
33 <211> LENGTH: 4768
34 <212> TYPE: DNA
35 <213> ORGANISM: Artificial Sequence
37 <220> FEATURE:
38 <223> OTHER INFORMATION: Phage vector
40 <400> SEQUENCE: 1
41 gttaaactacg tcagggtggca cttttcgggg aaatgtgcgc ggaaccccta tttgtttatt 60
42 tttctaaata cattcaaata tgtatccgct catgagacaa taacctgat aaatgcttca 120
43 ataataattga aaaaggaaga gtatgagtat tcaacatttc cgtgtcgcgc ttattccctt 180
44 ttttgcgcca ttttgccctc ctgtttttgc taccacagaa acgctggtga aagtaaaaga 240
45 tgctgaagat cagttgggtg cacgagtggg ttacatcgaa ctggatctca acagcggtaa 300
46 gatccttgag agttttcgcc ccgaagaacg ttctccaatg atgagcactt ttaaagttct 360
47 gctatgtggc gcggtattat cccgtgttga cgccgggcaa gagcaactcg gtcgccgcat 420
48 acactattct cagaatgact tgggttgagta ctcaccagtc acagaaaagc atcttacgga 480
49 tggcatgaca gtaagagaat tatgcagtgc tgccataacc atgagtgata acactgcggc 540
50 caacttactt ctgacaacga tcggaggacc gaaggagcta accgcttttt tgcacaacat 600
51 gggggatcat gtaactcgcc ttgatcgttg ggaaccggag ctgaatgaag ccataccaaa 660
52 cgacgagcgt gacaccaaga tgccgtgtagc aatggcaaca acgttgcgca aactattaac 720
53 tggcgaaacta cttactctag cttcccggca acaattaata gactggatgg aggcggataa 780
54 agttgcagga ccacttctgc gctcggccct tccggctggc tggtttattg ctgataaatc 840
55 tggagccggt gagcgtgggt ctcgcggtat cattgcagca ctggggccag atggttaagc 900
56 ctcccgtatc gtagttatct acacgacggg gagtcaggca actatggatg aacgaaatag 960
57 acagatcgct gagataggtg cctcactgat taagcattgg taactgtcag accaagttta 1020
58 ctcatatata ctttagattg atttaccgcc gttgataatc agaaaagccc caaaaacagg 1080
59 aagattgtat aagcaaatat ttaaattgta aacgttaata ttttgttaaa attcgcgtta 1140
60 aatttttgtt aaatcagctc attttttaac caataggccg aaatcggcaa aatcccttat 1200
61 aaatcaaaag aatagcccga gatagggttg agtgttggtc cagtttgtaa caagagtcca 1260
62 ctattaaaga acgtggactc caacgtcaaa gggcgaaaaa ccgtctatca gggcgatggc 1320
63 ccactacgtg aaccatcacc caaatcaagt tttttggggt cgaggtgccg taaagcacta 1380

```

## RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/815,825

TIME: 08:25:47

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw

```

64 aatcggaacc ctaaagggag ccccgattt agagcttgac ggggaaagcg aacgtggcga 1440
65 gaaaggaagg gaagaaagcg aaaggagcgg gcgctagggc gctggcaagt gtagcggtca 1500
66 cgctgcgcgt aaccaccaca cccgcgcgcg ttaatgcgcg gctacagggc gcgtaaaagg 1560
67 atctaggtga agatcctttt tgataatctc atgacaaaaa tcccttaacg tgagttttcg 1620
68 ttccactgag cgtagacacc cgtagaaaag atcaaaggat cttcttgaga tccttttttt 1680
69 ctgcgcgtaa tctgctgctt gcaaacaaaa aaaccaccgc taccagcggg ggtttgtttg 1740
70 cgggatcaag agctaccaac tctttttccg aaggttaact gcttcagcag agcgagata 1800
71 ccaaatactg ttcttctagt gtagccgtag ttaggccacc acttcaagaa ctctgtagca 1860
72 ccgcctacat acctcgctct gctaactctg ttaccagtgg ctgctgccag tggcgataag 1920
73 tcgtgtctta ccgggttggg ctcaagacga tagttaccgg ataaggcgca gcggtcgggc 1980
74 tgaacggggg gttcgtgcac acagcccagc ttggagcgaa cgacctacac cgaactgaga 2040
75 tacctacagc gtgagctatg agaaagcgcc acgcttcccg aaggagagaa ggcggacagg 2100
76 tatccggtaa gcggcagggt cgggaacagg gagcgcacga gggagcttcc agggggaaac 2160
77 gcctggtatc tttagtgtcc tgtcgggttt cgccacctct gacttgagcg tcgatttttg 2220
78 tgatgctcgt cagggggggc gagcctatgg aaaaacgcca gcaacgcggc ctttttacgg 2280
79 ttctggcctt ttgtctggcc tttgtctcac atgtaatgtg agttagctca ctcattaggc 2340
80 accccaggct ttacacttta tgcttccggc tcgtatgttg tgtggaattg tgagcggata 2400
81 acaatttcac acaggaaaca gctatgacca tgattacgcc aagctacgta atacgactca 2460
82 ctaggcggcc gcgtttaaac aatgtgctcc tctttggctt gcttccgcgg gccaaaggcc 2520
83 acaagaacca gttgacgtca agcttcccgg gacgcgtgct agcggcgcgc cgaattcctg 2580
84 caggattoga gggccctgc aggtcaattc taccgggtag gggagggcgt ttcccaagg 2640
85 cagtctggag catgcgcttt agcagccccg ctggcacttg gcgctacaca agtggcctct 2700
86 ggctcgcac acattccaca tccaccggta gcgccaacgg gctccgttct ttgggtggccc 2760
87 cttcgcgcca ccttctactc ctccctagt cagggaagtt ccccccgcgc cgcagctcgc 2820
88 gtcgtgcagg acgtgacaaa tggaaagtag acgtctcact agtctcgtgc agatggacag 2880
89 caccgctgag caatggaagc gggtaggcct ttggggcagc ggccaatagc agctttgctc 2940
90 cttcgctttc tgggctcaga ggctgggaag ggggtgggtc gggggcgggc tcagggggcg 3000
91 gctcaggggc ggggcgggcg cgaaggctct cccgaggccc ggcattctcg cagcttcaa 3060
92 aagcgcagct ctgcgcgcgt gttctctctc tctcatctc cgggcctttc gacctgcagc 3120
93 caatatggga tcggccattg aacaagatgg attgcacgca ggttctccgg ccgcttgggt 3180
94 ggagaggcta ttccgctatg actgggcaca acagacaatc ggctgctctg atgcccgct 3240
95 gttccggctg tcagcgcagg ggcgcggcgt tctttttgtc aagaccgacc tgtccggtgc 3300
96 cctgaatgaa ctgcaggacg aggcagcgcg gctatcgtgg ctggccacga cgggcgttcc 3360
97 ttgcgcagct gtgctcgacg ttgtcactga agcgggaagg gactggctgc tattgggcga 3420
98 agtgccgggg caggatctcc tgtcatctca ccttgctcct gccgagaaag tatccatcat 3480
99 ggctgatgca atgcggcggc tgcatacgt tgatccggct acctgcccat tcgaccacca 3540
100 agcgaacat cgcctcgagc gagcacgtac tcggatggaa gccggtcttg tcgatcagga 3600
101 tgatctggac gaagagcacc aggggctcgc gccagccgaa ctgttcgcca ggctcaaggc 3660
102 gcgcattgcc gacggcgatg atctcgtcgt gacctatggc gatgcctgct tgccgaatat 3720
103 catggtggaa aatggccgct tttctggatt catcgactgt ggccggctgg gtgtggcgga 3780
104 ccgctatcag gacatagcgt tggctacccg tgatattgct gaagagcttg gcggcgaatg 3840
105 ggctgaccgc ttctcgtgct tttacggtat cgcgcgtccc gattcgcagc gcatcgctt 3900
106 ctatcgcctt cttgacgagt tctcttgagg ggatcgatcc gtcctgtaa gctgcagaaa 3960
107 ttgatgatct attaaacaat aaagatgtcc actaaaatgg aagtttttcc tgtcatactt 4020
108 tgtaagaag ggtgagaaca gagtacctac attttgaatg gaaggattgg agctacgggg 4080
109 gtgggggtgg ggtgggatta gataaatgcc tgctctttac tgaaggctct ttactattgc 4140
110 tttatgataa tgtttcatag ttggatatca taatttaaac aagcaaaacc aaattaagg 4200
111 ccagctcatt cctccactc atgatctata gatctataga tctctcgtgg gatcattgtt 4260
112 tttctcttga ttccacttt gtggttctaa gtactgtggt ttccaaatgt gtcagtttca 4320

```

## RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/815,825

TIME: 08:25:47

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw

```

113 tagcctgaag aacgagatca gcagcctctg ttccacatac acttcattct cagtattgtt 4380
114 ttgccaagtt ctaattccat cagaagctga ctctagatct ggatccggcc agctaggccg 4440
115 tcgacctcga gtgatcaggt accaagggtc tcgctctgtg tccgttgagc tcgacgacac 4500
116 aggacacgca aattaattaa ggccggcccg taccctctag tcaaggcctt aagtgaagtc 4560
117 tattacggac tggccgctgt tttacaacgt cgtgactggg aaaaccctgg cgttacccaa 4620
118 cttaatcgcc ttgcagcaca tccccctttc gccagctggc gtaatagcga agaggcccg 4680
119 accgatcgcc cttcccaaca gttgcgcagc ctgaatggcg aatggcgctt cgcttggtaa 4740
120 taaagcccg 4768

```

122 &lt;210&gt; SEQ ID NO: 2

123 &lt;211&gt; LENGTH: 6355

124 &lt;212&gt; TYPE: DNA

125 &lt;213&gt; ORGANISM: Artificial Sequence

127 &lt;220&gt; FEATURE:

128 &lt;223&gt; OTHER INFORMATION: Phage vector

130 &lt;400&gt; SEQUENCE: 2

```

131 gtttaatagt aatcaattac ggggtcatta gttcatagcc catatatgga gttccgcgtt 60
132 acataactta cggtaaattg cccgcctggc tgaccgcccc acgacccccg cccattgacg 120
133 tcaataatga cgtatgttcc catagtaacg ccaataggga ctttccaatg acgtcaatgg 180
134 gtggagtatt tacggtaaac tgcccacttg gcagtacatc aagtgtatca tatgccaagt 240
135 acgcccccta ttgacgtcaa tgacggaaaa tggcccgctt ggcattaagc ccagtacatg 300
136 accttatggg actttcctac ttggcagtac atctacgtat tagtcatcgc tattaccatg 360
137 gtgatgcggt tttggcagta catcaatggg cgtggatagc ggtttgactc acggggattt 420
138 ccaagtctcc accccattga cgtcaatggg agtttgtttt ggcacaaaaa tcaacgggac 480
139 tttccaaaat gtcgtaacaa ctccgcccc a ttgacgcaaa tgggcggtag gcgtgtacgg 540
140 tgggagggtc atataagcag agctgggtta gtgaaccgtc agatccgcta gcgtaccgg 600
141 tcgccaccat ggtgagcaag ggcgaggagc tgttcaccgg ggtggtgccc atcctggctg 660
142 agctggacgg cgacgtaaac ggccacaagt tcagcgtgtc cggcgagggc gagggcgatg 720
143 ccacctacgg caagctgacc ctgaagtcca tctgcaccac cggcaagctg cccgtgacct 780
144 ggccccacct cgtgaccacc ctgacctacg gcgtgcagtg cttcagccgc taccgccgac 840
145 acatgaagca gcacgacttc ttcaagtccg ccagtcaccga aggtacgtc caggagcgca 900
146 ccactttctt caaggacgac ggcaactaca agaccgcgc cgagggtgaag ttcgagggcg 960
147 acaccctggt gaaccgcacg gagctgaagg gcactgactt caaggaggac ggcaacatcc 1020
148 tggggcacaa cgtggagtac aactacaaca gccacaacgt ctatatcatg gccgacaagc 1080
149 agaagaacgg catcaagggt aacttcaaga tccgccacaa catcgaggac ggcagcgtgc 1140
150 agctcgccga ccactaccag cagaacaccc ccactggcga cggccccgtg ctgctgccc 1200
151 acaaccacta cctgaggacc cagtcgccc tgagcaaaag ccccaacgag aagcgcgac 1260
152 acatggtcct gctggagtgc gtgaccgccc ccgggatcac tctcggcagc gacgagctgt 1320
153 acaagtccgg actcagatcc accggtacta gataactgat cataatcagc cataccacat 1380
154 ttgtagaggt tttacttgc ttaaaaaacc tcccacacct cccctgaac ctgaaacata 1440
155 aaatgaatgc aattgttgtt gttaaactgt ttattgcagc ttataatggt taaaaataaa 1500
156 gcaatagcat cacaaatttc acaaataaag catttttttc actgcattct agttgtggtt 1560
157 tgtccaaact catcaatgta tcttaacggc aactacgtca ggtggcactt ttcggggaaa 1620
158 tgtgcgcgga acccctattt gtttattttt ctaaatacat tcaaataatg atccgctcat 1680
159 gagacaataa ccctgataaa tgcttcaata atattgaaaa aggaagagta tgagtattca 1740
160 acatttccgt gtcgccctta ttcccttttt tgccgcatth tgcttctctg tttttgctca 1800
161 cccagaaacg ctggtgaaag taaaagatgc tgaagatcag ttgggtgcac gagtgggtta 1860
162 catcgaaact gatctcaaca gcggtgaagt ccttgagagt tttcgccccg aagaacgttc 1920
163 tccaatgatg agcactttta aagttctgct atgtggcgcg gtattatccc gtgttgacgc 1980
164 cgggcaagag caactcggtc gccgcataca ctattctcag aatgacttgg ttgagtactc 2040

```

## RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/815,825

TIME: 08:25:47

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw

```

165 accagtcaca gaaaagcatc ttacggatgg catgacagta agagaattat gcagtgtctgc 2100
166 cataaccatg agtgataaca ctgcggccaa cttacttctg acaacgatcg gaggaccgaa 2160
167 ggagctaacc gcttttttgc acaacatggg ggatcatgta actcgccttg atcggtggga 2220
168 accggagctg aatgaagcca taccaaacga cgagcgtgac accacgatgc ctgtagcaat 2280
169 ggcaacaacg ttgcgcaaac tattaactgg cgaactactt actctagctt cccggcaaca 2340
170 attaatagac tggatggagg cggataaagt tgcaggacca cttctgcgct cggcccttcc 2400
171 ggctggctgg tttattgctg ataaatctgg agccggtgag cgtgggtctc gcggtatcat 2460
172 tgcagcactg gggccagatg gtaagccctc ccgtatcgta gttatctaca cgacggggag 2520
173 tcaggcaact atggatgaac gaaatagaca gatcgtgag atagggtgct cactgattaa 2580
174 gcattggtaa ctgtcagacc aagtttactc atatatactt tagattgatt taccocggtt 2640
175 gataatcaga aaagcccaa aaacaggaag attgtataag caaatattta aattgtaaac 2700
176 gttataaatt tgttaaaatt cgcgttaaat ttttgtaaaa tcagctcatt ttttaaccaa 2760
177 taggccgaaa tcggcaaaat cccttataaa tcaaaaagaat agcccgagat aggggttgagt 2820
178 gttgttccag tttggaacaa gagtccacta ttaaagaacg tggactccaa cgtcaaaggg 2880
179 cgaaaaaccg tctatcaggg cgatggccca ctacgtgaac catcacccaa atcaagtttt 2940
180 ttggggctga ggtgccgtaa agcactaaat cggaacccta aagggagccc ccgatttaga 3000
181 gcttgacggg gaaagcgaac gtggcgagaa aggaagggaa gaaagcgaac ggagcgggag 3060
182 ctaggcgctg ggcaagtgtg gcggtcacgc tgcgcgtaac caccacaccg gccgcgctta 3120
183 atgcgccgct acagggcgcg taaaaggatc taggtgaaga tcctttttga taatctcatg 3180
184 accaaaatcc cttaacgtga gttttcgttc cactgagcgt cagaccccggt agaaaagatc 3240
185 aaaggatctt ctgagatcc ttttttctg cgcgtaatct ggtgcttgca aacaaaaaaa 3300
186 ccaccgctac cagcggtggt ttgtttgccg gatcaagagc taccaactct tttccgaag 3360
187 gtaactggct tcagcagagc gcagatacca aatactgttc ttctagtgtg gccgtagtta 3420
188 ggccaccact tcaagaactc tgtagcaccg cctacatacc tcgctctgct aatcctgtta 3480
189 ccagtggctg ctgccagtgg cgataagtcg tgtcttaccg ggttggactc aagacgatag 3540
190 ttaccggata aggcgcagcg gtcgggctga acggggggtt cgtgcacaca gccagcttg 3600
191 gagcgaacga cctacaccga actgagatac ctacagcgtg agctatgaga aagcgccacg 3660
192 cttcccgaag ggagaaaggc ggacaggtat ccggtaaagc gcagggtcgg aacaggagag 3720
193 cgcacgaggg agcttcagg gggaaacgcc tggatctctt atagtcctgt cgggtttcgc 3780
194 cacctctgac ttgagcgtcg atttttgtga tgctcgtcag gggggcgagg cctatggaaa 3840
195 aacgcagaca acgcggcctt tttacggttc ctggcctttt gctggccttt tgctcacatg 3900
196 taatgtgagt tagctcactc attaggcacc ccaggcttta cactttatgc ttccggtctc 3960
197 tatgttgtgt ggaatttgtg gcggataaca atttcacaca ggaaacagct atgaccatga 4020
198 ttacgccaa gctacgtaata cgactcacta ggcgcccgcg tttaaacaat gtgctcctct 4080
199 ttggcttgct tccgcggggc aagccagaca agaaccagtt gacgtcaagc ttcccgggac 4140
200 gcgtgctagc ggcgcgccga attcctgcag gattcgaggg cccctgcagg tcaattctac 4200
201 cgggtagggg aggcgctttt cccaaggcag tctggagcat gcgctttagc agccccgctg 4260
202 gcacttgccg ctacacaagt ggccctctggc ctgcacaca ttccacatcc accggtagcg 4320
203 ccaaccggct ccgttctttg gtggccctt cgcgccacct tctactcctc ccctagtcag 4380
204 gaagtcccc ccgcggcgcg agctcgcgct gtgcaggacg tgacaaatgg aagtagcacg 4440
205 tctcactagt ctctgcaga tggacagcac cgctgagcaa tggaaagcggg taggcctttg 4500
206 gggcagcggc caatagcagc tttgtcctt cgctttctgg gctcagaggc tgggaagggg 4560
207 tgggtccggg ggcgggctca gggcgggct cagggcgggg gcgggcgcga aggtcctccc 4620
208 gagggccggc attctcgcac gcttcaaaa ggcacgtctg ccgcgctgtt ctctcttcc 4680
209 tcatctccgg gcctttcgac ctgcagccaa tatgggatcg gccattgaac aagatggatt 4740
210 gcacgcaggt tctccggccg cttgggtgga gaggctatc ggctatgact gggcacaaca 4800
211 gacaatcggc tgctctgatg ccgcggtgt cggctgtca gcgcagggg gcccggttct 4860
212 ttttgtcaag accgacctgt ccggtgcctt gaatgaactg caggacgagg cagcgcggct 4920
213 atcgtggctg gccacgacgg gcgttccctg cgcagctgtg ctgcagcttg tcaactgaagc 4980

```

## RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/815,825

TIME: 08:25:47

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw

```

214 gggaagggac tggctgctat tgggcgaagt gccggggcag gatctcctgt catctcacct 5040
215 tgctcctgcc gagaaagtat ccatcatggc tgatgcaatg cggcggtgc atacgcttga 5100
216 tccggctacc tgccattcg accaccaagc gaaacatcgc atcgagcgag cacgtactcg 5160
217 gatggaagcc ggtcttgctg atcaggatga tctggacgaa gagcatcagg ggctcgcgcc 5220
218 agccgaactg ttccgccaggc tcaaggcgcg catgcccgac ggccgatgatc tcgtcgtgac 5280
219 ccatggcgat gcctgcttgc cgaatatcat ggtggaaaat ggccgctttt ctggattcat 5340
220 cgactgtggc cggttggtg tggcggaccg ctatcaggac atagcggttg ctaccctga 5400
221 tattgtgaa gagcttggtg gcgaatggc tgaccgcttc ctctgcttt acggtatcgc 5460
222 cgctcccgat tcgcagcgca tcgccttcta tcgccttctt gacgagttct tctgagggga 5520
223 tcgatccgtc ctgtaagtct gcagaaattg atgatctatt aaacaataaa gatgtccact 5580
224 aaaatggaag tttttcctgt catactttgt taagaagggt gagaacagag tacctacatt 5640
225 ttgaatggaa ggattggagc tacgggggtg ggggtgggtt gggattagat aaatgcctgc 5700
226 tctttactga aggtctttta ctattgcttt atgataatgt ttcatagttg gatatacataa 5760
227 tttaaacaag caaaaccaa ttaaggggcca gctcattcct cccactcatg atctatagat 5820
228 ctatagatct ctctggtgat cattgttttt ctcttgatc ccactttgtg gttctaagta 5880
229 ctgtggtttc caaatgtgtc agtttcatag cctgaagaac gagatcagca gcctctgttc 5940
230 cacatacact tcattctcag tattgttttg ccaagttcta attccatcag aagctgactc 6000
231 tagatctgga tcggccagc taggcccgtc acctcgagt atcagggtacc aaggctcctc 6060
232 ctctgtgtcc gttgagctcg acgacacagg acacgcaa atattaaggc cggcccgtac 6120
233 cctctagtca aggccttaag tgagtogtat tacggactgg ccgtcgtttt acaacgtcgt 6180
234 gactgggaaa accctggcgt taccacactt aatgccttg cagcacatcc ccctttcgcc 6240
235 agctggcgta atagcgaaga ggcccgcacc gatcgccctt cccaacagtt gcgcagcctg 6300
236 aatggcgaat ggcgcttcgc ttggtaataa agcccgttc ggcgggcttt ttttt 6355
238 <210> SEQ ID NO: 3
239 <211> LENGTH: 26
240 <212> TYPE: DNA
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: Phage vector
246 <400> SEQUENCE: 3
247 tgtgctctc tttggcttgc ttccaa 26
249 <210> SEQ ID NO: 4
250 <211> LENGTH: 26
251 <212> TYPE: DNA
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <223> OTHER INFORMATION: Phage vector
257 <400> SEQUENCE: 4
258 ttggaagcaa gccaaagagg agcaca 26
260 <210> SEQ ID NO: 5
261 <211> LENGTH: 25
262 <212> TYPE: DNA
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: Phage vector
268 <400> SEQUENCE: 5
269 ctggttcttg tctggcttgg cccaa 25
271 <210> SEQ ID NO: 6
272 <211> LENGTH: 25

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/815,825

DATE: 10/18/2001

TIME: 08:25:48

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF3\10182001\I815825.raw